

## COPY OF PAPERS ORIGINALLY FILED

6/andtB P.Welle PATENT 2-2762

IN THE CARDO STATES PATENT AND TRADEMARK OFFICE

Applicant: Serial No.:

Kie Y. Ahn et al.

09/817,447

Examiner: James Mitchell

Group Art Unit: 2822

Filed:

March 26, 2001

Docket: 303.459US2

Title:

METHODS FOR MAKING COPPER AND OTHER METAL

INTERCONNECTIONS IN INTEGRATED CIRCUITS

## AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111

Commissioner for Patents Washington, D.C. 20231

Applicant has reviewed the Office Action mailed on October 23, 2001. Please amend the above-identified patent application as follows.

## **IN THE CLAIMS**

Please substitute the claim set in the appendix entitled Clean Version of Pending Claims for the previously pending claim set. The substitute claim set is intended to reflect the amendment of previously pending claim 38 and addition of new claims 39-76. The specific amendments to individual claims are detailed in the following marked up set of claims.

38. (Amended) An integrated-circuit assembly comprising:

an insulative layer having a trench or hole, the trench or hole having an edge;
a first diffusion barrier having a portion inside the trench or hole; and
a second diffusion barrier on the [trench] insulative layer and having an edge
substantially flush with a least a portion of the edge of the trench or hole,
with the second diffusion barrier comprising a zinc oxide material and the
first diffusion barrier comprising a material different than the zinc oxide

02/19/2002 MNOLDER1 00000066 09817447

01 FC:102 02 FC:103 420.00 DP 342.00 DP

material.

RECEIVER

Applicant:

Kie Y. Ahn et al.

Title:

METHODS FOR MAI

**CIRCUITS** 

Docket No.:

303.459US2

Filed: Examiner: March 26, 2001

James Mitchel

Commissioner for Patents Washington, D.C. 20231

FEB 1 2 2002

Serial No.: 09/817,447 Due Date: January 23, 2002

ID OTHER METAL INTERCONNECTIONS IN INTEGRATED

Group Art Unit: 2822

COPY OF PAPERS **ORIGINALLY FILED** 

We are transmitting herewith the following attached items (as indicated with an "X"):

A return postcard.

An Amendment and Response under 37 CFR 1.111 (10 Pages).

A Supplemental Information Disclosure Statement (1 pg.), Form 1449 (1 pg.), and copies of 2 cited references.

XXXXXX A check in the amount of \$180.00 to cover the fee for consideration of Information Disclosure Statement under 97(c).

A check in the amount of \$762.00 to cover the fee for additional claims as calculated below.

Clean Version of Pending Claims (8 pgs.).

additional fee is required due to changes to the claims, the fee has been calculated as follows:

an adduolai tee is tequi						
	(1) Claims Remaining After Amendment		(2) Highest Number Previously Paid For	(3) Present Extra	Rate	Fee
TOTAL CLAIMS	39	_	20	19	x 18=	\$342.00
INDEPENDENT CLAIMS	8	-	3	5	x 84 =	\$420.00
[] MULTIPLE DEPENDENT CLAIMS PRESENTED						\$0.00
TOTAL						\$762.00

Please consider this a PETITION FOR EXTENSION OF TIME for sufficient number of months to enter these papers and please charge any additional required fees or credit overpayment to Deposit Account No. 19-0743.

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.

P.O. Box 2938, Minneapolis, MN 55402 (612-373-6900)

Eduardo E. Drake

Un marias

No. 40.594

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the Unite States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner for Patents, Washingto D.C. 20231, on this 23rd day of January, 2002.

**Customer Number 21186** 

Name

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.

P.O. Box 2938, Minneapolis, MN 55402 (612-373-6900)